PILE QUANTITY RECORD

BM 78 in lieu of forms DH-OS-C78 and DH-OS-C78A

Job Stamp:

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6

04-0440U4 SEISMIC RETROFIT	
BENICIA BRIDGE STRUCTURE	

Bridge	Name	e: _	Benic	ia-Ma	rtinez	Toll Br	idge					8-0153			Abut / Pier N		4	
N/A Ftg Type: Ftg on CISS Pile							. 8	ottor	of Fo	oting E	ev.: _	- 15.0	ft	Sheet I	No: _			
_		PIPE I		<u> </u>								Model(c).					
Drill E	rivina	Insn i	Bv: -	Day	/ bi	lesh!	F	·F	ile Q	uantity	Calc. F	зу:				ate:		
Pile G	rout P	lacing	Insp.	By:				F	ile Q	uantity	Check	By:			D	ate:		
T				<u>ه</u>	<u>.</u>	2 2	af l											
Pile No.	Date Shaft Drilled	Date Grout Placed	(1) Top of Pile Elev.	(2) Spec. Tip Elev.	3) Theor	Spec. Tip Eley.	eor. Len (4-1)	(6) Actual Tip Elev.(1-5)	Length (6-1)	Length "See Note 1	Field Splice Elev.	Remarks	s, (Note V	Vhere Ad	ditional Remark	s are In	put, i.e. El	PEG)
	ă	ă		8	ا ق	4. ω (f	2 4	<u>@</u>	9	<u> </u>	Ē	·						
1			+8	-174	182											:		
2			+8	-174	182													
-				177	102													
3			+8	-174	182													
4			+8	-174	182						.							
5			+8	-174	182													
6			+8	-174	182													
7			+8	-174	182													
8			+8	-174	182													
					102												-	
	Fotal					Item#	24	4	Total:		L.F.		·····					
			th (8) is	the rev	rised the	eoretical le	ength (5),	unless of	herwise	e revised							_	
	SONS	_	D		. 7	O!! D	- 04	l Caaia.	_ 1	14 m mm alle	•		Danada	.4:		1 -1-211 -		
ltem#			Desci		1: Jeshit	2" Pern		Steel Ir		ltem#:	DN		Descrip		Placing Insp.		d shaft	Ja H
		alcs B			lesbi	**	Date:	Oleci II				s Chec	ked Bv:	CONCI	lacing map.		2./\/ <u>@\$</u> ate:	DI II
				1		erm. Ste						illed Shaft					Reinf.	
·	9	peol	laced	son			(1-3)		2	<u>~</u>	ž.	jo	ò	(See	Remarks,	~···		ebar ()
9	Drilled	Place	Pla	aisso	Tip elevation	p Elev.		Elev.	p Elev	p Elev 1)	(7) Actual Tip Elev.	1	1 Lgt -7)	ath (s	(Note Where	Elev.	Theor. Length of Rebar Reqd (Lower Cage)	Actual Length of Rebar Req'd (Lower Cage)
Caisson No	Shaft [bar	Date Concrete P	(1) Top of Cais Elev.	g.	(3) Actual Tip	(4) Pay Length.	Field Splice El	(5) Spec. Tip (Plan)	Spec. Tip ((revised)	i F	Theor. Lgt. Shaft (2-6)	(9) Measured L. Shaft (3-7)	(10) Pay Length (Note 2)	Additional Remarks are	Field Splice El	Length of Reqd (Low	igth ver (
Cais	e St	Date Rebar	Con	lg III	Spec.	Actu	ay Lı	ld S	Spe (F	Spe (re	Votu	The	Aeas Sha	ay No	Input, i.e.	Sp	Rec	Ler (Lo
	Date	Date	ate	Ξ	(2) Sp	(6)	4) P.	Fie	(2)	(9)	(6)	(8)	V (6)	<u>(</u>	EPEG)	Fie	Theor. Rebar Cage)	ctual eq'd
11	5/18	5/20	1 ,	50	-123	722	_	-42/-14	-168	-167	-1100	44	44	44	yes		75'	75
12	iala	1.12	مارار	9 0	-123	-123	123	-43/-15	-168	-168	-169	45	46	45	EPEG		75'	
	6/2	63	4147	1	1-123			7-13	-100	-160	101	75_	76	72	EPEG		13	25
13	4/2/9	44115	1 419	0	-123	-123	123	-43/-1S	-168	-163	-174	45	51	45	√es		75'	75'
14	4/210	عملاء الع	413	a 0	123	-123	123	-43/-15	-168	-168	-170	45	47	45	Ves Ves		15,	-~1
<u> </u>	7100	11-11-1	712	9 0	120	-123	123	113	100	100	110	190		73	EPEE		13	/3
Sheet	Total		Item#	 :	31	Total	1491	 	LF	Item#:	<u></u>	30	Total	179	LF	L		
N-17	2: The p	ay lengt	th (10) is			-		that if the	e meas	ured leng	th (9) is	less than	- the theore	tical leng	_1			
				be the p	ay leng	th (10)												
الكامار ،	ilional	Rema	IKS:			· .												
			_															

LOG PILE SHEET(CAISSONS)

Form BM 79 IN LIEU OF DH-OS-C79

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6 04-0440U4 SEISMIC RETROFIT BENICIA BRIDGE STRUCTURE

Bridge l	Name) :	Benicia	a-Martin	ez Toll E	Bridge	Bridge	No.:	28-0153 Abut/Pier No.: 4 Sheet No.: 1/17
- #	31		ription:	72" Pe	rm. Stee	el Casir	ng		Item #: 30 Description 66" Drilled Shaft
		ent(s):	•						Model(s): Caisson / Shaft No.: 1
nsp. B				Date:		Refe	rence l	oint D	escription: Top of Footing Elevation: + 10.0 ft
		72" Pe	rm. Steel	Casing	Cassion	(Mate	rial Re	moval)	Comments
Penetration (ft)	Elev. (ft)	Placement Method (Driven/others)	Production Rate (blows/ft), (min./ft)	Date	Production Drilling/Coring Rate (Min./ft)	Material Removed (conc./soil)	Equip. Used	Date	Note: equipment breakdown, changes in productivity rates, changes in methods or equipment, reasons for changes, equipment mob/demob, when groundwater is encountered, whether temporary casings or slurries were used, whether soils samples were taken or saved, equip. start/stop times, or any other relevant info.
0		kibbeil	-	3/22/5					
1	+9		ļ	1					
2	+8							<u> </u>	
3	+7		<u> </u>	- -			<u> </u>	 	
4	+6		-			<u> </u>	1	 	
5	+5	-	1	- -	 	1	<u> </u>	1	
6	+4	-	1		 	<u> </u>		 	
7	+3		1	++	-	 	<u> </u>	<u> </u>	
8	+2	$\vdash \vdash$	-	++-	 	 	 	-	
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13	-3	++	+	+	 		†		,
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29	-18			++	-	+	+	-	
30	-19		+			+	+	-	
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33	-23		-		1	+	1		
34	-24			1	101	hy mic	1 WIA	n 5/1	at 7:00 Am. drilling mud in caisson
35	-25		1		1	J		177	CA 7:00 Am.
36						\top	11		
_ 37									,
L	-28			\.\ \\	V				<i>j</i>
1	uonal	Rema	ırks:						

LOG PILE SHEET (CAISSONS)

Form BM 79 IN LIEU OF DH-OS-C79

Job Stamp:

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6 04-0440U4 SEISMIC RETROFIT BENICIA BRIDGE STRUCTURE

Benicia-Martinez Toll Bridge Bridge No.: 28-0153 Abut/Pier No.: 4 Sheet No.: Bridge Name: 2/12 Description: 72" Perm. Steel Casing Item #: Description 66" Drilled Shaft # 31 Model(s): Equipment(s): Caisson / Shaft No.: Reference Point Description: Date: Top of Footing Elevation: + 10.0 ft Insp. By: Comments Penetration (ft) \in Note: equipment breakdown, changes in productivity rates, changes in methods or equipment, reasons for changes, equipment mob/demob, when Elev. groundwater is encountered, whether temporary casings or slurries were used, whether soils samples were taken or saved, equip. start/stop times, or any other relevant info. 0 +10 1 +9 2 +8 3 +7 4 +6 5 +5 6 +4 7 +3 8 +2 9 +1 10 0 11 -1 12 -2 -3 -4 -5 10 16 -6 17 -7 18 -8 19 -9 20 -10 21 -11 22 -12 23 -13 24 -14 25 -15 26 -16 27 -17 28 -18 29 -19 30 -20 31 -21 32 -22 33 -23 34 -24 35 -25 36 -26 -27 -28 regitional Remarks:

LOG PILE SHEET (CAISSONS)
Form BM 79 IN LIEU OF DH-OS-C79

Job Stamp:

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6

04-0440U4 SEISMIC RETROFIT BENICIA BRIDGE STRUCTURE

Abut/Pier No.: 4 Benicia-Marinez Toll Bridge Bridge No.: 28-0153 Sheet No.: 3/12 Bridge Name: Description 72" Perm. Steel Casing Description 66" Drilled Shaft Item #: Model(s): Equipment(s): Caisson / Shaft No.: Date: Reference Point Description: Elevation: + 10.0 ft Top of Footing Insp. By: Cassion (Material Removal) 72" Perm. Steel Casing Comments Material Removed (conc./soll) Placement Method (Driven/others) Production Rate (blows/ft), (min./ft) Drilling/Corlng Rate (Min./ft) Penetration (ft) Equip. Used Note: equipment breakdown, changes in productivity rates, changes in methods or Date Date equipment, reasons for changes, equipment mob/demob, when groundwater is Elev. encountered, whether temporary casings or slurries were used, whether soils samples were taken or saved, equip. start/stop times, or any other relevant info. 39 40 -30 41 -31 -32 42 43 -33 44 -34 -35 45 -36 46 47 -37 48 -38 49 -39 50 -40 51 -41 50 -42 -43 -44 54 55 -45 -46 56 57 -47 58 -48 Contractor dr.11 rate is approx 8 Alpar 59 -49 60 -50 61 -51 62 -52 63 -53 64 -54 65 -55 66 -56 67 -57 68 -58 69 -59 70 -60 71 -61 72 -62 73 -63 74 -64 Contractor Stribbal 80 Section 75 -65 -66 -67 Adultional Remarks:

LOG PILE SHEET(CAISSONS)

Form BM 79 IN LIEU OF DH-OS-C79

Job Stamp:

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6

dge l	Name	Benicia-Marinez Toll Bridge Bridge No.: 28-0153 Abut/Pier No.: 4 Sheet No.: 4/12
#_	31	Description 72" Perm. Steel Casing Item #: 30 Description 66" Drilled Shaft
Drill Eq	uipme	ent(s): Model(s): Caisson / Shaft No.:
Insp. B	y:	Date: Reference Point Description: Top of Footing Elevation: + 10.0 ft
		Comments
Penetration (ft)	Œ	
ē	Elev. (Note: equipment breakdown, changes in productivity rates, changes in methods or equipment, reasons for changes, equipment mob/demob, when groundwater is encountered, whether temporary casings or slurries were used, whether soils samples were taken or saved, equip. start/stop times, or
etra	ū	any other relevant info.
Pen	· .	·
39	-29	
40	-30	
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51	-41	
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72	-62	
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1 }	-66	
L	-67	
Addi	tional	Remarks:

LOG PILE SHEET(CAISSONS)

Form BM 79 IN LIEU OF DH-OS-C79

Job Stamp:

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6

04-0440U4 SEISMIC RETROFIT BENICIA BRIDGE STRUCTURE

Benicia-Marinez Toll Bridge Bridge No.: 28-0153 Abut/Pier No.: 4 ે • Name: Sheet No .: 4 31 Description 72" Perm. Steel Casing Item #: Description 66" Drilled Shaft Model(s): Caisson / Shaft No.: Drill Equipment(s): Reference Point Description: Date: Top of Footing Elevation: + 10.0 ft Insp. By: Comments Cassion (Material Removal) 72" Perm. Steel Casing Production Drilling/Coring Rate (Min./ft) Placement Method (Driven/others) Material Removed (conc./soil) Production Rate (blows/ft), (mln./ft) Penetration (ft) Note: equipment breakdown, changes in productivity rates, changes in methods or Elev. equipment, reasons for changes, equipment mob/demob, when groundwater is encountered, whether temporary casings or slurries were used, whether soils samples were taken or saved, equip. start/stop times, or any other relevant info. 3/3/7 Dellig Mudwith 5/13/96 78 -68 79 -69 80 -70 -71 81 82 -72 -73 83 84 -74 -75 85 -76 86 87 -77 88 -78 89 -79 an -80 -81 -82 93 -83 At 2:00pm, contractor -84 and dill rate 94 -84 -85 95 96 -86 97 -87 98 -88 99 -89 100 -90 101 -91 102 -92 103 -93 Contractor Staylor 28 Section. 104 -94 -95 Diven 8 105 4/1/99 106 -96 -97 Styled 107 108 -98 109 -99 110 | -100 111 |-101 112 |-102 113 |-103 114 -104 -105 -106to Additional Remarks: .

LOG PILE SHEET(CAISSONS)

Form BM 79 IN LIEU OF DH-OS-C79

Job Stamp:

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6

эг	Name	Benicia-Marinez Toll Bridge Bridge No.: 28-0153 Abut/Pier No.: 4 Sheet No.: 6/12
#	31	Description 72" Perm. Steel Casing Item #: 30 Description 66" Drilled Shaft
Orill Eq	uipme	ent(s): Caisson / Shaft No.:
nsp. B		Date: Reference Point Description: Top of Footing Elevation: + 10.0 ft
		Comments
Penetration (ft)	· Elev. (ft)	Note: equipment breakdown, changes in productivity rates, changes in methods or equipment, reasons for changes, equipment mob/demob, when groundwater is encountered, whether temporary casings or slumes were used, whether soils samples were taken or saved, equip. start/stop times, or any other relevant info.
78	-68	
79	-69	
80	-70	
81	-71	
82	-72	
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86	-76	
. 87 88	-77 -78	
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93	-83	
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F' '*	-10	
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Addi		Remarks:

153 | -143 -144

LOG PILE SHEET(CAISSONS)

Form BM 79 IN LIEU OF DH-OS-C79

Job Stamp:

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6

04-0440U4 SEISMIC RETROFIT

BENICIA BRIDGE STRUCTURE Bridge No.: 28-0153 Abut/Pier No.: 4 Sheet No .: 7/12 e Name: Benicia-Marinez Toll Bridge # 31 Description 72" Perm. Steel Casing Item #: Description 66" Drilled Shaft Model(s): Caisson / Shaft No.: Drill Equipment(s): Date: Reference Point Description: Top of Footing Elevation: + 10.0 ft Insp. By: Cassion (Material Removal) Comments 72" Perm. Steel Casing Rate oduction Rate vs/ft), (min./ft) srial Removed conc./soil) ement Method iven/others) etration (ft) roduction ig/Coring R (Min./ft) Elev. (ft) ulp. Used Note: equipment breakdown, changes in productivity rates, changes in methods or Date equipment, reasons for changes, equipment mob/demob, when groundwater is encountered, whether temporary casings or slurries were used, whether soils samples

Pene	. 1	Placen (Driv	Produ			Pro Drilling		Marer (co	Eq.				were taken or saved, equip. start/stop times, or any other relevant info.
117	-107					Dr			111.0	44	Eli	idac	i - Contractor continues delling to the ty
118	-108	TLIAN	1	17/	'गग	37	1\'r)*	W.	12:4	IXI	3/1	7/	of the caisson. Dissoftee observed only
119	-109	-	+ \$		\dashv			╁	1	\dashv		\vdash	for Dane Nosbit on 5/14/98.
120	-110	-	े 8	+	+			+	+	\dashv		\vdash	Jes pene 140011 0 5/19/11.
121	-111	\dashv	1 3	\dashv	+		-	+	-	1		$\dag \dag$	
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123	-113		6	\dashv	+	\vdash		+-	† 	+		H	
124	-114				+		$-\dagger$	+-	+1	-		$\dagger \dagger$	
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126	-116		5	\dashv	+	 	\Box	1	$\dagger T$	-		H	
127	-117		111		+	<u> </u>		 	$\dagger +$			H	
	-118		31		+	 		\dagger	††	-			
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- ·	-120	 	1111		+	1	1	+	$\dagger \dagger$				Piet Hockman (FCI) Stopped driving at
	-121	†	161		\top	1	1	1	11				liet Hollman (FCI) Stopped driving at tip elevation of -121'9" due to blaw aunt.
132	-122	— ,	V 202	94	V	1	1	V	14		4		The elevation is 1'3" too high
133	_1	1	<u> </u>	7	<u> </u>		اردنا	Boy.	بالبار	/th	5/1	700	THE ELECTION IS 13 130 MIGH
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145	-135	5				Dni	ling	RO	LIWI	im	15	18/9	Contractorius ordered to Stop all
146	-136	3						1	T	1	1	1	lde" Shaft drilling untiltheaving the feeisse
147	-137	7		Ī						T			His resolved.
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152	2 -14:	2				1	1			T	1		

-145 Additional Remarks:

LOG PILE SHEET(CAISSONS)

Form BM 79 IN LIEU OF DH-OS-C79

Job Stamp:

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6 04-0440U4 SEISMIC RETROFIT

- · · · · · · · · · · · · · · · · · · ·	Name	e: Benicia-Marinez Toll Bridge Bridge N	 √o.: 28-0153	- -	Abut/Pier No.: 4 Sheet No.: 5/17	
	31	Description 72" Perm. Steel Casing	Item #:	30	Description 66" Drilled Shaft	
_		ent(s):	Model(s):		Caisson / Shaft No.:	
nsp. B			int Description:		Top of Footing Elevation: + 10.0 ft	
nsp. D	7.7.	. Dute. Notes in the	Commer	nts	Top of Found Elevation: 10.0 H	
Penetration (ft)	Elev. (ft)	Note: equipment breakdown, changes in productivity ragroundwater is encountered, whether temporary casings	ites, changes in metho or slurries were used, any other releva	, wheth		, when times, or
117	-107					
	-108					
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123 124	-113 -114	<u> </u>				
125	-115					
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134	-124	4				
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139						
141	-130 -131					
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143						
144						
145		5 Start drilling at 845 am				
146	-136	6				
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148	-138	8				
149		9				
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151						
152						
153	3 -14:					
	-14					
ر آماماً	14- ا د					
Mudi	iuonal	Remarks:				

LOG PILE SHEET(CAISSONS)

Form BM 79 IN LIEU OF DH-OS-C79

Job Stamp:

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6

04-0440U4 SEISMIC RETROFIT BENICIA BRIDGE STRUCTURE

Benicia-Marinez Toll Bridge Bridge No.: 28-0153 Abut/Pier No.: 4 Sheet No.: 9/17 ੇ re Name: 30 Description 66" Drilled Shaft # 31 Description 72" Perm. Steel Casing Item #: Model(s): Caisson / Shaft No.: Drill Equipment(s): Date: Reference Point Description: Top of Footing Elevation: + 10.0 ft Insp. By: Cassion (Material Removal) Comments 72" Perm. Steel Casing - Production - (Min./ft) Material Removed (conc./soil) Placement Method (Driven/others) Production Rate (blows/ft), (min./ft) Penetration (ft) Equip. Used Note: equipment breakdown, changes in productivity rates, changes in methods or Elev. (equipment, reasons for changes, equipment mob/demob, when groundwater is encountered, whether temporary casings or slurries were used, whether soils samples were taken or saved, equip. start/stop times, or any other relevant info. brillia Rock Wirth 5/8/90 156 -146 157 | -147 158 -148 159 | -149 Intake hose leaking on platform, repair for 30 minutes 160 | -150 161 |-151 162 | -152 163 | -153 164 | -154 12:35, 4 Stems left 165 | -155 166 | -156 167 | -157 1:50 pm 168 | -158 -159 160- اد 171 |-161 172 | -162 173 | -163 for began drilling lob Shatt 174 | -164 175 | -165 176 | -166 fractor drilled the Lab " shat 177 | -167 178 | -168 179 | -169 180 | -170 181 | -171 182 -172 183 | -173 184 -174 185 | -175 186 | -176 187 | -177 188 -178 189 | -179 190 | -180 191 | -181 192 | -182 -183 -184 Additional Remarks:

Départment of	Transportation
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LOG PILE SHEET(CAISSONS)

Form BM 79 IN LIEU OF DH-OS-C79

Job Stamp:

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6

	Name	: Benicia-Marinez Toll Bridge Bridge No.: 28-0153 Abut/Pier No.: 4 Sheet No.: 19/12
	31	Description 72" Perm. Steel Casing Item #: 30 Description 66" Drilled Shaft
Drill Ed		
Insp. B		Date: Reference Point Description: Top of Footing Elevation: + 10.0 ft
тор	7.	Comments
£	<u></u>	
Penetration (ft)	Elev. (ft)	Note: equipment breakdown, changes in productivity rates, changes in methods or equipment, reasons for changes, equipment mob/demob, when groundwater is encountered, whether temporary casings or slumies were used, whether soils samples were taken or saved, equip. start/stop times, or
		any other relevant info.
	-146	
157	-147	
158	-148	
159 160	-149 -150	1110 - 100 - 1110 - 1100 - 1110
161	-151	11:10 am, 11:18 repair hose, begin drilling 11:45
162	-152	
163	-153	
164	-154	12:44 Stopdrilling to add another drill stem. 12:53 resume Inlling
-165	-155	
166	-156	
167	-157	
168	-158	
	-159 -160	
171	-161	
172	-162	437, stop duling to add anomen stem, 448 resume Inlling.
173	-163	
174	-164	
175	-165	5:22pm, reached 175'. Finished for the day
176	-166	
177	-167	
178	-168	
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181		
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185	-175	
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190		A Pro-
	2 -18	
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† 1	-18	
Add		Remarks:

LOG PILE SHEET(CAISSONS)

Form BM 79 IN LIEU OF DH-OS-C79

Job Stamp:

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6

Drill Equipment(s): Insp. By: Date: Reference Point Description: Top of Footing Elevation: + 10.0 ft 72" Perm. Steel Casing Cassion (Material Removal) Comments Note: equipment breakdown, changes in productivity rates, changes in methods or equipment, reasons for changes, equipment mob/demob, when groundwater is		Name				z Toll Bri		Bridge		28-0153 Abut/Pier No.: 4 Sheet No.: 11/12
Date: Date: Reference Point Description: Top of Footing Elevation: +10.0 ft	-				72" Pe	rm. Ste	el Casir	ng		
72" Perm. Selec Casing Casion (Material Removal) Comments			ent(s): __							
Note: equipment breakdown, changes in productivity rates, changes in methods or equipment, reasons for changes, equipment mobidemok, whether soils sample were taken or saved, equip. start/stop times, or any other relevant info. 195	nsp. B	y:								escription: Top of Footing Elevation: + 10.0 ft
198 186			72" Per	m. Steel	Casing	Cassion	ı (Mate	rial Re	moval)	Comments
198 188	Penetration (ft)	Tip Elev. (ft)	Placement Method (Driven/others)	Production Rate (blows/ft), (min./ft)	Date	Production Drilling/Coring Rate (Min./ft)	Material Removed (conc./soil)	Equip. Used	Date	equipment, reasons for changes, equipment mob/demob, when groundwater is encountered, whether temporary casings or slurries were used, whether soils samples
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201 -191				1		<u> </u>				
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204 -194				-	<u> </u>			<u> </u>		
205 -195				1				<u> </u>		
206 -196				!						
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1-199 210 -200 211 -201 212 -202 213 -203 214 -204 215 -205 216 -206 217 -207 218 -208 219 -209 220 -211 221 -222 -212 223 -213 224 -214 225 -215 226 -216 227 -217 -228 -218 229 -219 220 -219 220 -210 -221 -221 -222 -212 -223 -218 -229 -219 -223 -218 -229 -219 -223 -221 -222	207			1			<u> </u>	1		
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LOG PILE SHEET(CAISSONS)

Form BM 79 IN LIEU OF DH-OS-C79

Job Stamp:

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6

04-0440U4 SEISMIC RETROFIT

- 770	Name	: Benicia-Marinez Toll Bridge Bridge No.: 28-0153 Abut/Pier No.: 4 Sheet No.: 12/12
a	31	Description 72" Perm. Steel Casing Item #: 30 Description 66" Drilled Shaft
		ent(s): Caisson / Shaft No.:
nsp. B		Date: Reference Point Description: Top of Footing Elevation: + 10.0 ft
1100. 0	"	Comments
1		
Penetration (ft)	Tip Elev. (ft)	Note: equipment breakdown, changes in productivity rates, changes in methods or equipment, reasons for changes, equipment mob/demob, when groundwater is encountered, whether temporary casings or sluries were used, whether soils samples were taken or saved, equip. start/stop times, or any other relevant info.
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Muai	uonai	Remarks:

LOG PILE SHEET(CAISSONS)

Form BM 79 IN LIEU OF DH-OS-C79

Job Stamp:

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6 04-0440U4 SEISMIC RETROFIT

04-0440U4 SEISMIC RETROFIT BENICIA BRIDGE STRUCTURE

Benicia-Martinez Toll Bridge Bridge No.: 28-0153 Abut/Pier No.: 4 Sheet No.: Bridge Name: Description: 72" Perm. Steel Casing Item #: Description 66" Drilled Shaft # 31 Caisson / Shaft No.: Model(s): Equipment(s): Date: Reference Point Description: Top of Footing Elevation: + 10.0 ft . By: 72" Perm. Steel Casing | Cassion (Material Removal) Comments Production Drilling/Coring Rate (Min./ft) Material Removed (conc./soil) Placement Method (Driven/others) Production Rate (blows/ft), (min./ft) Penetration (ft) Equip. Used Elev. (ft) Note: equipment breakdown, changes in productivity rates, changes in methods or equipment, reasons for changes, equipment mob/demob, when groundwater is encountered, whether temporary casings or slurries were used, whether soils samples were taken or saved, equip. start/stop times, or any other relevant info. 0 +10 3/6/5 1 +9 +8 2 +7 3 +6 4 5 +5 6 +4 7 +3 +2 8 9 +1 10 0 11 -1 -2 12 13 -3 -4 -5 -6 17 -7 18 -8 19 -9 20 -10 21 -11 22 -12 23 -13 24 -14 25 -15 26 -16 27 -17 28 -18 29 -19 30 -20 31 -21 32 -22 33 -23 34 -24 35 -25 36 -26 37 -27 -28 tional Remarks:

Department of	Transportation
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LOG PILE SHEET (CAISSONS)

Form BM 79 IN LIEU OF DH-OS-C79

Job Stamp:

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6

Bridge Name:Benicia-Martinez Toll BridgeBridge No.:28-0153Abut/Pier No.:4 Sheet No.:# 31 Description: 72" Perm. Steel CasingItem #: 30 Description 66" Drilled ShaftLequipment(s):Model(s):Caisson / Shaft No.:	2/12
Model(a):	1.0
	14
אב By: Date: Reference Point Description: Top of Footing Elevation: +	10.0 ft
Comments	
Note: equipment breakdown, changes in productivity rates, changes in methods or equipment, reasons for changes, equipment more groundwater is encountered, whether temporary casings or slurries were used, whether soils samples were taken or saved, equip. so any other relevant info.	
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18 -8	
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22 -12	
23 -13 -	
24 -14	
25 -15	
26 -16 27 -17	
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itional Remarks:	

LOG PILE SHEET(CAISSONS)

Form BM 79 IN LIEU OF DH-OS-C79

Job Stamp:

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6

04-0440U4 SEISMIC RETROFIT

BENICIA BRIDGE STRUCTURE Abut/Pier No.: 4 Sheet No.: Benicia-Marinez Toll Bridge 28-0153 Bridge Name: Bridge No.: Description 72" Perm. Steel Casing Item #: Description 66" Drilled Shaft Caisson / Shaft No.: 12 Model(s): Equipment(s): Date: Reference Point Description: Elevation: + 10.0 ft ار..ال. By: Top of Footing 72" Perm. Steel Casing | Cassion (Material Removal) Comments Placement Method (Driven/others) Drilling/Coring Rate (Min./ft), Material Removed (conc./soil) Production Rate (blows/ft), (min./ft) Penetration (ft) Elev. (ft) Equip. Used Note: equipment breakdown, changes in productivity rates, changes in methods or Production equipment, reasons for changes, equipment mob/demob, when groundwater is encountered, whether temporary casings or slurries were used, whether soils samples were taken or saved, equip. start/stop times, or any other relevant info. 39 -29 319198 40 -30 -31 41 42 -32 43 -33 -34 44 -35 45 46 -36 47 -37 48 -38 -39 49 50 -40 -41 51 52 -42 -43 -44 -45 56 -46 57 -47 58 -48 59 -49 60 -50 61 -51 62 -52 63 -53 -54 65 -55 66 -56 67 -57 68 -58 69 -59 Contractor began drilling out 1 70 -60 71 -61 72 -62 73 -63 74 -64 75 Contractor Stabbal 80' section. -66

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LOG PILE SHEET(CAISSONS)

Form BM 79 IN LIEU OF DH-OS-C79

Job Stamp:

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6

04-0440U4 SEISMIC RETROFIT BENICIA BRIDGE STRUCTURE

28-0153 Abut/Pier No.: 4 Benicia-Marinez Toll Bridge Bridge No.: Sheet No.: 4/12 Bridge Name: Description 72" Perm. Steel Casing 30 Description 66" Drilled Shaft Item #: # 31 Model(s): Caisson / Shaft No.: 12_ Equipment(s): Date: Reference Point Description: Top of Footing Elevation: + 10.0 ft ı...ρ. By: Comments Penetration (ft) € Note: equipment breakdown, changes in productivity rates, changes in methods or equipment, reasons for changes, equipment mob/demob, when Elev. groundwater is encountered, whether temporary casings or slurnes were used, whether soils samples were taken or saved, equip. start/stop times, or any other relevant info. 39 -29 40 -30 41 -31 42 -32 -33 43 44 -34 45 -35 -36 46 -37 47 -38 48 49 -39 50 -40 51 -41 52 -42 -43 -44 -45 υċ 56 -46 57 -47 58 -48 59 -49 60 -50 61 -51 62 -52 63 -53 64 -54 65 -55 66 -56 67 -57 68 -58 69 -59 70 -60 71 -61 72 -62 73 -63 74 -64 75 -65 76 -66 -67 itional Remarks:

LOG PILE SHEET(CAISSONS)

Form BM 79 IN LIEU OF DH-OS-C79

Job Stamp:

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6

04-0440U4 SEISMIC RETROFIT BENICIA BRIDGE STRUCTURE

Abut/Pier No.: 4 Bridge No.: 28-0153 Sheet No.: B= 'ne Name: Benicia-Marinez Toll Bridge Description 72" Perm. Steel Casing Description 66" Drilled Shaft Item #: # 31 Model(s): Caisson / Shaft No.: 12 Equipment(s): Date: Reference Point Description: Top of Footing Elevation: + 10.0 ft Insp. By: 72" Perm. Steel Casing Cassion (Material Removal) Comments Material Removed (conc./soil) Drilling/Coring Rate (Min./ft), Production Rate (blows/ft), (min./ft) Placement Method (Driven/others) Penetration (ft) Elev. (ft) Equip. Used Note: equipment breakdown, changes in productivity rates, changes in methods or Date equipment, reasons for changes, equipment mob/demob, when groundwater is encountered, whether temporary casings or slurries were used, whether soils samples were taken or saved, equip. start/stop times, or any other relevant info. mudlwish blis 78 -68 3/2/19 79 -69 -70 80 -71 81 82 -72 -73 83 84 -74 -75 85 86 -76 -77 87 -78 88 89 -79 90 -80 -81 -82 -83 -84 94 95 -85 96 -86 97 -87 98 -88 99 -89 100 -90 101 -91 102 -92 103 -93 Contractor Stables 28 Section. 104 -94 105 -95 Driven 106 -96 107 -97 2 -98 Stally 108 109 -99 110 |-100 111 |-101 112 | -102 113 |-103 114 -104 Druen 115 -105 -106 tional Remarks:

LOG PILE SHEET (CAISSONS)

Form BM 79 IN LIEU OF DH-OS-C79

Job Stamp:

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6 04-0440U4 SEISMIC RETROFIT

re l			28-0153			Sheet No.:_	6/12
_	31	Description 72" Perm. Steel Casing	Item #: 30	Description			
-		ent(s):	Model(s):			/ Shaft No.:	
risp. By	y:	Date: Reference Point D			ooting	Elevation: -	+ 10.0 ft
	1		Comments				
Penetration (ft)	Elev. (ft)	Note: equipment breakdown, changes in productivity rates, c groundwater is encountered, whether temporary casings or slu		ether soils samples			
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		Remarks:					

LOG PILE SHEET (CAISSONS)

Form BM 79 IN LIEU OF DH-OS-C79

Job Stamp:

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6 04-0440U4 SEISMIC RETROFIT

P=:\'ae	Name					z Toll Bri				dge	No.		28-0153 Abut/Pier No.: 4 Sheet No.: 7/12				
#	31	Desc	ription	72"	Pe	rm. Ste	el C	asii	ng				Item #: 30 Description 66" Drilled Shaft				
E	quipm	ent(s):											Model(s): Caisson / Shaft No.: 12_				
Insp. E	y:			Da									escription: Top of Footing Elevation: + 10.0 ft				
		72" Pe	rm. Steel	Cas	ing	Cassion		late	erial	Rer	nov	al)	Comments				
		B	en ≘			Production Drilling/Coring Rate (Min./ft)	g										
€	2	etho ers)	Rate In./			5 K 1	ove.	≘	2				Note: equipment breakdown, changes in productivity rates, changes in methods or				
Penetration (ft)	Elev. (ft)	Placement Method (Driven/others)	Production Rate (blows/ft), (min./ft)	4	Cate	Production ng/Coring (Min./ft)	Material Removed	/so	beet charge		Date		equipment, reasons for changes, equipment mob/demob, when groundwater is				
etra	ŭ	mer	luct s/ft)	6	ວັ	Z Z dt	lal	ono	2	1	۵		encountered, whether temporary casings or slurries were used, whether soils samples				
)en	•	ace (Dri	o so			P Jilli	ater	ပ	1	3			were taken or saved, equip. start/stop times, or any other relevant info.				
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LOG PILE SHEET(CAISSONS)

Form BM 79 IN LIEU OF DH-OS-C79

Job Stamp:

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6 04-0440U4 SEISMIC RETROFIT

n. 'ge	Name	e: Benicia-Marinez Toll Bridge Bridge No.: 28-0153 Abut/Pier No.: 4 Sheet No.: 8/12	
.#	31	Description 72" Perm. Steel Casing	
		ent(s): Caisson / Shaft No.: 12_	
Insp. E	y: <u> </u>	Date: Reference Point Description: Top of Footing Elevation: + 10.0 ft	
		Comments	
Penetration (ft)	Elev. (ft)	Note: equipment breakdown, changes in productivity rates, changes in methods or equipment, reasons for changes, equipment mob/demob, groundwater is encountered, whether temporary casings or slurries were used, whether soils samples were taken or saved, equip. start/stop tire any other relevant info.	
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		Remarks:	
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LOG PILE SHEET (CAISSONS)

Form BM 79 IN LIEU OF DH-OS-C79

Job Stamp:

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6

Bride	Name	e:	Benicia-	Marine	z Toll Bri	dge	Bridg	ge No.:	28-0153	A	but/Pier No.	: 4	Sheet No.:	9/12
•	31				rm. Stee				Item #:	30 D	escription _	66" Dr	illed Shaft	712
. Ed	quipm	ent(s):	•						Model(s):		\overline{c}	aissor	/ Shaft No.:	12
Inop. B	•			Date:		Refe	erence	Point [Description:		Top of Foo	oting	Elevation:	+ 10.0 ft
		72" Per	m. Steel	Casing	Cassior	ı (Mate	erial R	emoval)		Cor	nment	S	
		g	n @		Production Drilling/Coring Rate (Min./ft)	<u> </u>								
Œ	₽	etho	Rate In./I		- R	E) To	g		Note: equi	oment break	down, changes	in produ	ctivity rates, char	nges in methods or
lon	Elev. (ft)	oth M	l nol .	Date	ig ig	?еп ./so	Us	Date	equipme	nt, reasons f	or changes, equ	uipment i	mob/demob, whe	n groundwater is
Penetration (ft)	ă	Placement Method (Driven/others)	Production Rate (blows/ft), (min./ft)	۵	Production ng/Coring (Min./ft)	Material Removed (conc./soil)	Equip. Used	۵						hether soils samples
- Je		ace (Drj	or od		P Gill	ater (C			were	taken or sav	ved, equip. start	t/stop tim	nes, or any other	relevant info.
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156	-146		l			Zax	Widt	a blik	8					
157	-147					1	\prod'							
158	-148				<u> </u>	<u> </u>								
159	-149		<u> </u>		3'/hr.									
160	-150			<u> </u>	<u> </u>		$\bot \bot$							
161	-151			<u> </u>		<u> </u>	$\perp \perp$	$\perp \perp$						
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163	-153						$\bot \bot$	$\bot \bot$						
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166	-156		<u> </u>	<u> </u>		 		$\bot\bot$	1			- 4		
167	-157	<u> </u>	ļ	<u> </u>		┦.		+1	Contr		Stopped	de	Miry 7:3	John, and
168	-158	4	1	<u> </u>	ļ	W	1	Y		ontinu	ue 140	MOCK	uilat (JAM.
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LOG PILE SHEET(CAISSONS)

Form BM 79 IN LIEU OF DH-OS-C79

Job Stamp:

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6

P∹ ₁de	Name			28-0153		Abut/Pier No.: 4		10/12
•	31	Description 72" Perm. Steel Casing		em #:		Description 66" Dril	led Shaft	
		ent(s):		odel(s):		Caisson	/ Shaft No.:	12
mop. E		Date: Reference I	Point Des			Top of Footing	Elevation:	+ 10.0 ft
				Commer	nts			
£	€	Andrew Committee of the	4					
tion	Elev. (ft)	Note: equipment breakdown, changes in productivity groundwater is encountered, whether temporary casin	y rates, chan nos or slumie	ges in metho	ods or equ	uipment, reasons for chang	ges, equipment i	nob/demob, when
Penetration (ft)	ä	groundwate is encounted ed, whether temporary cash	an	s were used, ly other releva	ant info.	John Sarripics Were taken	or saveu, equip.	stativistop times, or
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LOG PILE SHEET(CAISSONS)

Form BM 79 IN LIEU OF DH-OS-C79

Job Stamp:

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6

				<u></u> -						
> . <u>`</u>	he Name	: Benicia-Marinez Toll Bridge	Bridge No.:	28-0153		Abut/Pier No	o.: 4	Sheet No.:	11/1.2	
	# 31	Description 72" Perm. Steel Cas	ing	Item #:	30	Description	66" Di	illed Shaft		
	- minmo	ent/e)·		Model(s).			Caisson	1 Shaft No :	12	

ΕŌ	uipm	ent(s):							Model(s): Caisson / Shaft No.: 2					
Insp. B				Date:					escription: Top of Footing Elevation: + 10.0 ft					
		72" Per	m. Steel	Casing	Cassion	(Mate	rial Re	moval)	Comments					
Penetration (ft)	Tip Elev. (ft)	Placement Method (Driven/others)	Production Rate (blows/ft), (min./ft)	Date	Production Drilling/Coring Rate (Min./ft),	Material Removed (conc./soil)	Equip. Used	Date	Note: equipment breakdown, changes in productivity rates, changes in methods or equipment, reasons for changes, equipment mob/demob, when groundwater is encountered, whether temporary casings or slurries were used, whether soils samples were taken or saved, equip. start/stop times, or any other relevant info.					
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LOG PILE SHEET(CAISSONS)

Form BM 79 IN LIEU OF DH-OS-C79

Job Stamp:

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6

⊏< ⁴qe	Name	e: Benicia-Marinez Toll Bridge	Bridge No.:	28-0153		Abut/Pier No.: 4	Sheet No.:	12/12
-	31	Description 72" Perm. Steel Ca		Item #:	30	Description 66" Dri		/12
		ent(s):		Model(s):			/ Shaft No.:	12_
mop. E			ference Point D	escription:		Top of Footing	Elevation:	
				Comme	nts			
(L)	€	Note: equipment breakdown, changes in	productivity rates o	hanges in metho	ode or e	equipment reasons for chan	aec equipment a	ach/domah utan
Penetration (ft)	Elev.	groundwater is encountered, whether tem	productivity rates, coorary casings or sit	urries were used	, wheth	er soils samples were taken	or saved, equip.	start/stop times, or
Jetra	Tip E		•	any other relev	ant info).		
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LUG FILE SHEET (CAISSUNS) Form BM 79 IN LIEU OF DH-OS-C79

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6 04-0440U4 SEISMIC RETROFIT BENICIA BRIDGE STRUCTURE

# 31 Description: 72" Perm. Steel Casing Equipment(s): Date: Reference Point Description: Top of Footing Elevation: + 10.0 ft 72" Perm. Steel Casing Cassion (Material Removal) Comments Note: equipment breakdown, changes in productivity rates, changes in methods or equipment, reasons for changes, equipment mob/demob, when groundwater is encountered, whether temporary casings or slumes were used, whether soils sample were taken or saved, equip. start/stop times, or any other relevant info. Pile Started August 15 Out 19	ridge	Name	e:	Benicia	a-Marti	nez Toll E	Bridge	Bridge N	۱o.:	28-0153 Abut/Pier No.: 4 Sheet No.: 1/17
Equipment(s): Date: Reference Point Description: Top of Footing Elevation: +10.0 ft 72° Perm Stee Casing Cassion (Material Removal) Comments			Desc	ription:	72" Pe	erm. Stee	el Casi	ng	•	Item #: 30 Description 66" Drilled Shaft
Date: Reference Point Description: Top of Footing Elevation: +10.0 ft 72° Ferm Stee Ceasing Cassion (Material Removal) Comments By By By By By By By By By By By By By B										
T2" Perm Steel Casing Cassion (Material Removal) Comments			(-/-		Date:		Refe	rence Po	int D	Description: Top of Footing Elevation: + 10.0 ft
Company Comp	10p. D	y. 1	72" Po			Cassion				
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2	Penetration (ft)	ŕ					Material Removed (conc./soil)	Equip. Used	Date	equipment, reasons for changes, equipment mob/demob, when groundwater is encountered, whether temporary casings or slurries were used, whether soils samples were taken or saved, equip. start/stop times, or any other relevant info.
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LOG PILE SHEET (CAISSONS)

Form BM 79 IN LIEU OF DH-OS-C79

Job Stamp:

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6

Bridge		Benicia-Martinez Toll Bridge Bridge No.: 28-0153 Abut/Pier No.: 4 Sheet No.: 2/12
* #_	31	Description: 72" Perm. Steel Casing Item #: 30 Description 66" Drilled Shaft
ιEc	uipm	ent(s): Caisson / Shaft No.: 13
Insp. E		Date: Reference Point Description: Top of Footing Elevation: + 10.0 ft
		Comments
Penetration (ft)	Elev. (ft)	Note: equipment breakdown, changes in productivity rates, changes in methods or equipment, reasons for changes, equipment mob/demob, when groundwater is encountered, whether temporary casings or slurries were used, whether soils samples were taken or saved, equip. start/stop times, or any other relevant info.
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1	itional	Remarks:

LOG PILE SHEET (CAISSONS)

Form BM 79 IN LIEU OF DH-OS-C79

Job Stamp:

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6

Bridge	Name											28-0153	Abut/Pier No.: 4 Sheet N			
# 31 Description 72" Perm. Steel Casing								Casin	g		_ 1	tem #:3(Description 66" Drilled Shaf	t		
a Equipment(s):												Model(s):	Caisson / Shaft N	No.: 13		
Insp. By: Date: Reference Point D									ence F	oint	De	scription:	Top of Footing Elevation	on: + 10.0 ft		
Γ	72" Perm. Steel Casing Cassion (Material Removal)								ial Re	nova	al)	Comments				
Penetration (ft) Elev. (ft) Placement Method (Driven/others) Production Rate (blows/ft), (min./ft) Date Date Production Production (Min./ft)																
E	<u></u>	Placement Method (Driven/others)	Production Rate (blows/ft), (min./ft)			Ra		(conc./soll)	9			Note: equipmen	akdown, changes in productivity rates,	changes in methods as		
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Penetration (ft)	品)ren en/c	(£)	(ft), (n		Production ng/Coring F		5	<u>a</u>	Date	- 1	encountered, whe	temporary casings or slurries were use	ed, whether soils samples		
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LOG PILE SHEET(CAISSONS)

Form BM 79 IN LIEU OF DH-OS-C79

Job Stamp:

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6

04-0440U4 SEISMIC RETROFIT BENICIA BRIDGE STRUCTURE

28-0153 Abut/Pier No.: 4 Benicia-Marinez Toll Bridge Bridge No.: Sheet No.: 4/12 **Bridge Name:** Description 72" Perm. Steel Casing Item #: Description 66" Drilled Shaft # 31 Model(s): Dnil Equipment(s): Caisson / Shaft No.: 13 Reference Point Description: Date: Top of Footing Elevation: + 10.0 ft Insp. By: Comments Penetration (ft) € Note: equipment breakdown, changes in productivity rates, changes in methods or equipment, reasons for changes, equipment mob/demob, when Elev. groundwater is encountered, whether temporary casings or slurries were used, whether soils samples were taken or saved, equip. start/stop times, or any other relevant info. 39 -29 40 -30 41 -31 42 -32 -33 43 -34 44 45 -35 46 -36 47 -37 48 -38 49 -39 50 -40 51 41 -42 -43 54 -44 55 -45 56 -46 57 -47 58 -48 59 **-49** 60 -50 61 -51 62 -52 63 -53 64 -54 65 -55 66 -56 67 -57 68 -58 69 -59 70 -60 71 -61 72 -62 73 -63 74 -64 75 -65 -66 -67 Additional Remarks:

LOG PILE SHEET(CAISSONS)

Form BM 79 IN LIEU OF DH-OS-C79

Job Stamp:

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6

04-0440U4 SEISMIC RETROFIT BENICIA BRIDGE STRUCTURE

Abut/Pier No.: 4 ne Name: Bridge No.: 28-0153 Sheet No.: Benicia-Marinez Toll Bridge # 31 Description 72" Perm. Steel Casing Description 66" Drilled Shaft Item #: Model(s): Caisson / Shaft No.: 13 ביתוו Equipment(s): Date: Reference Point Description: Top of Footing Elevation: + 10.0 ft Insp. By: Cassion (Material Removal) Comments 72" Perm. Steel Casing Placement Method (Driven/others) Material Removed (conc./soil) Production Rate (blows/ft), (mln./ft) Penetration (ft) Note: equipment breakdown, changes in productivity rates, changes in methods or Production equipment, reasons for changes, equipment mob/demob, when groundwater is encountered, whether temporary casings or slurries were used, whether soils samples were taken or saved, equip. start/stop times, or any other relevant info. 78 79 -69 -70 80 -71 81 -72 82 83 -73 -74 84 -75 85 86 -76 -77 87 -78 89 -79 -80 -81 -82 93 -83 94 -84 -85 -86 97 -87 98 -88 99 -89 100 -90 101 -91 102 -92 103 -93 104 -94 105 -95 Diven 8 3/13/6 106 -96 Pile sinking under Hammon weight. 107 -97 108 -98 109 -99 110 |-100 Drilling mild Brill 4/1/18 Contractor continue drilling mud 111 -101 112 -102 113 -103 114 -104 -105 -106 Additional Remarks:

LOG PILE SHEET (CAISSONS)

Form BM 79 IN LIEU OF DH-OS-C79

Job Stamp:

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6 04-0440U4 SEISMIC RETROFIT

er: -c	Name	
#	31_	Description 72" Perm. Steel Casing Item #: 30 Description 66" Drilled Shaft
Drill Eq	uipme	ent(s): Caisson / Shaft No.:
nsp. B	y:	Date: Reference Point Description: Top of Footing Elevation: + 10.0 ft
		Comments
Penetration (ft)	£	Notes and installation of the south of the s
E	Elev. (ft)	Note: equipment breakdown, changes in productivity rates, changes in methods or equipment, reasons for changes, equipment mob/demob, when groundwater is encountered, whether temporary casings or slurries were used, whether soils samples were taken or saved, equip. start/stop times, or
etra	Ξ.	any other relevant info.
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Addi	tional	Remarks:

LOG PILE SHEET (CAISSONS)

Form BM 79 IN LIEU OF DH-OS-C79

Job Stamp:

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6

04-0440U4 SEISMIC RETROFIT BENICIA BRIDGE STRUCTURE

Abut/Pier No.: 4 Sheet No.: 28-0153 7/12 Bridge No.: 'ae Name: Benicia-Marinez Toll Bridge # 31 Description 72" Perm. Steel Casing Item #: Description 66" Drilled Shaft Caisson / Shaft No.: 13 Drill Equipment(s): Model(s): Reference Point Description: Date: Top of Footing Elevation: + 10.0 ft Insp. By: Cassion (Material Removal) Comments 72" Perm. Steel Casing Material Removed (conc./soil) Placement Method (Driven/others) Drilling/Coring Rate (Min./ft) Production Rate (blows/ft), (min./ft) Penetration (ft) Note: equipment breakdown, changes in productivity rates; changes in methods or Equip. Used Elev. equipment, reasons for changes, equipment mob/demob, when groundwater is encountered, whether temporary casings or slurries were used, whether soils samples were taken or saved, equip. start/stop times, or any other relevant info. -107 Sterbland 117 31341 Dallin -108 118 -109 119 1-110 120 -111 121 122 -112 123 -113 124 | -114 125 -115 Driven 126 | -116 2 -117 127 128 | -118 129 | -119 -120 -121 8 Rock -122132 51 133 | -123 134 -124 135 -125 136 -126 137 -127 138 -128 139 1-129 140 | -130 141 -131 142 | -132 143 | -133 144 | -134 145 | -135 146 -136 147 | -137 148 | -138 149 | -139 150 | -140 151 | -141 152 | -142 -143 -144 -145Stopped the driving at -123.0' Additional Remarks:

LOG PILE SHEET (CAISSONS)

Form BM 79 IN LIEU OF DH-OS-C79

Job Stamp:

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6

04-0440U4 SEISMIC RETROFIT BENICIA BRIDGE STRUCTURE

rige Name: Benicia-Marinez Toll Bridge Bridge No.: 28-0153 Abut/Pier No.: 4 Sheet No.: 8/12

| Abut/Pier No.: 4 Sheet No.: 8/12 | Sheet No.: 8/12 | Sheet No.: 12 | Sheet No.: 12 | Sheet No.: 13 | Sheet No.: 13 | Sheet No.: 14 | Sheet No.: 15 | Sheet No.: 15 | Sheet No.: 15 | Sheet No.: 15 | Sheet No.: 15 | Sheet No.: 15 | Sheet No.: 15 | Sheet No.: 15 | Sheet No.: 15 | Sheet No.: 15 | Sheet No.: 16 | Sheet No.: 17 | Sheet No.: 17 | Sheet No.: 16 | Sheet No.: 17 | Sheet No.: 17 | Sheet No.: 17 | Sheet No.: 17 | Sheet No.: 17 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.: 18 | Sheet No.:

		ent(s):		Model(s):		/ Shaft No.:)	3
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				Comments			
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LOG PILE SHEET(CAISSONS)

Form BM 79 IN LIEU OF DH-OS-C79

Job Stamp:

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6

₽₫₫qe			Benicia-						Bric	ige	No		28-0153 Abut/Pier No.: 4 Sheet No.: 9/12
# 31 Description 72" Perm. Steel Ca											Item #: 30 Description 66" Drilled Shaft		
וווס Equipment(s):													Model(s): Caisson / Shaft No.: 13
Insp. B													escription: Top of Footing Elevation: + 10.0 ft
72" Perm. Steel Casing Cassion (Ma									rial F	Ren	nov	(al)	Comments
Penetration (ft)	Elev. (ft)	Placement Method (Driven/others)	Production Rate (blows/ft), (mln./ft)	Date	Production Production (Min./ft), Material Removed (conc./soll)		(conc./soll)	Equip. Used		Date		Note: equipment breakdown, changes in productivity rates, changes in methods or equipment, reasons for changes, equipment mob/demob, when groundwater is encountered, whether temporary casings or slurries were used, whether soils samples were taken or saved, equip. start/stop times, or any other relevant info.	
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LOG PILE SHEET (CAISSONS)

Form BM 79 IN LIEU OF DH-OS-C79

Job Stamp:

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6

P÷ige	Name	ne: Benicia-Marinez Toll Bridge Bridge No.: 28-0153 Abut/Pier No.: 4 Sheet No.: 10/12	
# 31		Description 72" Perm. Steel Casing Item #: 30 Description 66" Drilled Shaft	
Drill Ed	quipme	ment(s): Model(s): Caisson / Shaft No.: \(\)3	
Insp. B	By:	Date: Reference Point Description: Top of Footing Elevation: + 10.0 ft	
		Comments	
Penetration (ft)	Elev. (ft)	Note: equipment breakdown, changes in productivity rates, changes in methods or equipment, reasons for changes, equipment mob/demob, groundwater is encountered, whether temporary casings or slumes were used, whether soils samples were taken or saved, equip. start/stop ti any other relevant info.	when mes, or
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LOG PILE SHEET(CAISSONS)

Form BM 79 IN LIEU OF DH-OS-C79

Job Stamp:

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6

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	31_			72" Pe	rm. Stee	el Casir	ng		Item #: 30 Description 66" Drilled Shaft
Drill Eq	uipm	ent(s):_							Model(s): Caisson / Shaft No.: 13
Insp. By: Date: Reference Point D						Refe	rence P	oint De	escription: Top of Footing Elevation: + 10.0 ft
	Ť	72" Per	m. Steel	Casing	Cassion	(Mate	rial Rer	noval)	Comments
Penetration (ft)	Tip Elev. (ft)	Placement Method (Driven/others)	Production Rate (blows/ft), (min./ft)	Date	Production Drilling/Coring Rate (Min./ft),	Material Removed (conc./soil)	Equip. Used	Date	Note: equipment breakdown, changes in productivity rates, changes in methods or equipment, reasons for changes, equipment mob/demob, when groundwater is encountered, whether temporary casings or slurries were used, whether soils samples were taken or saved, equip. start/stop times, or any other relevant info.
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LOG PILE SHEET(CAISSONS)

Form BM 79 IN LIEU OF DH-OS-C79

Job Stamp:

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6

04-0440U4 SEISMIC RETROFIT

BENICIA BRIDGE STRUCTURE

r ige	Name		28-0153		t/Pier No.: 4		2/12
# 31		Description 72" Perm. Steel Casing	Item #:	30 Des	scription 66" [Orilled Shaft	
Dnil Ed	quipm	ent(s):	Model(s):		Caiss	on / Shaft No.: 13	,
Insp. B	By:	Date: Reference Point De	escription:	-	Top of Footing	Elevation: + 10	0.0 ft
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Penetration (ft)) 	Note: equipment breakdown, changes in productivity rates, ch groundwater is encountered, whether temporary casings or slur	anges in metho Ties were used	as or equipm	ent, reasons for ch	ranges, equipment mob/	demob, when
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LOG PILE SHEET (CAISSONS) Form BM 79 IN LIEU OF DH-OS-C79 Job Stamp:

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6

04-0440U4 SEISMIC RETROFIT BENICIA BRIDGE STRUCTURE

Bridge Name: Benicia-Martinez Toll Bridge Bridge No.: 28-0153 Abut/Pier No.: 4 Sheet No .: Description: 72" Perm. Steel Casing Item #: 30 Description 66" Drilled Shaft Model(s): Equipment(s): Caisson / Shaft No.: Reference Point Description: Elevation: + 10.0 ft Date: Top of Footing Insp. By: 72" Perm. Steel Casing Cassion (Material Removal) Comments Placement Method (Driven/others) Material Removed (conc./soil) Production Rate (blows/ft), (min./ft) Drilling/Coring Rate (Min./ft) Penetration (ft) Elev. (ft) Note: equipment breakdown, changes in productivity rates, changes in methods or Equip. Used equipment, reasons for changes, equipment mob/demob, when groundwater is Date encountered, whether temporary casings or slurries were used, whether soils samples were taken or saved, equip. start/stop times, or any other relevant info. 0 +10 3/2/99 +9 1 2 +8 +7 3 4 +6 5 +5 +4 6 +3 8 +2 9 +1 10 0 11 -1 -2 12 -3 13 -4 -5 16 -6 -7 17 -8 18 19 -9 20 -10 21 -11 22 -12 23 -13 24 -14 25 -15 26 -16 27 -17 28 -18 29 -19 30 -20 31 -21 32 -22 33 -23 34 -24 35 -25 36 -26 37 -27 -28 .ional Remarks:

Department of Transportation
LOG PILE SHEET(CAISSONS)

Form BM 79 IN LIEU OF DH-OS-C79

Job Stamp:

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6

# 31 Description 72" Perm. Steel Casing Item # 30 Description 66" Drilled Part Model(s): Calsson / Shaft Not. 1/4 Insp. By: Date: Reference Point Description: Top of Footing Elevation: + 10.0 ft Reference Point Description: Top of Footing Elevation: + 10.0 ft	Rridge	Name	e: Benicia-Martinez Toll Bridge Bridge No.: 28-0153 Abut/Pier No.: 4 Sheet No.: 2/12							
Insp. By: Date: Reference Point Description: Top of Footing Elevation: + 10.0 ft	#	31	Description: 72" Perm. Steel Casing Item #: 30 Description 66" Drilled Shaft							
Insp. By: Date: Reference Point Description: Top of Footing Elevation: + 10.0 ft Comments Comments	Lim Ed	uipm	ent(s): Caisson / Shaft No.: 14							
Note equipment breakdown, charges in productivity rates, charges in methods or equipment, reasons for changes, equipment mobifernob, when groundwater is encountered, whether temporary casings or alumies were used, whether soils samples were taken or saved, equip. start/stop times, or any other relevant info. Note equipment breakdown, charges in productivity rates, charges in methods or equipment, reasons for changes, equipment mobifernob, when groundwater is encountered, whether temporary casings or alumies were used, whether soils samples were taken or saved, equip. start/stop times, or any other relevant info. Note equipment breakdown, charges in productivity rates, charges in methods or equipment, reasons for changes, equipment mobifernob, when groundwater is encountered, whether soils samples were taken or saved, equip. start/stop times, or any other relevant info. Note equipment breakdown, charges in productivity rates, charges in methods or equipment, reasons for changes, equipment mobifernob, when groundwater is encountered, whether soils samples were taken or saved, equip. start/stop times, or any other relevant info. Note equipment mobifernob, when groundwater is encountered, whether soils samples were taken or saved, equip. start/stop times, or any other relevant info. Note equipment mobifernob, when groundwater is encountered, whether soils samples were taken or saved, equip. start/stop times, or any other relevant info. Note equipment mobifernob. When the production is equipment, reasons for charges, equipment mobifernob. When the production is equipment mobifernob. When the production is equipment mobifernob. When the production is equipment mobifernob. When the production is equipment mobifernob. When the production is equipment mobifernob. When the production is equipment mobifernob. When the production is equipment mobifernob. When the production is equipment mobifernob. In the production is equipment mobifernob. In the production is equipment mobifernob. In the production is	Insp. B	y:	Date: Reference Point Description: Top of Footing Elevation: + 10.0 ft							
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LOG PILE SHEET(CAISSONS)

Form BM 79 IN LIEU OF DH-OS-C79

Job Stamp:

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6 04-0440U4 SEISMIC RETROFIT

BENICIA BRIDGE STRUCTURE

Abut/Pier No.: 4 Sheet No.: Bridge No.: 28-0153 Benicia-Marinez Toll Bridge Rridge Name: Description 72" Perm. Steel Casing Description 66" Drilled Shaft # 31 Item #: Model(s): Caisson / Shaft No.: 14 בייו Equipment(s): Date: Reference Point Description: Top of Footing Elevation: + 10.0 ft Insp. By: 72" Perm. Steel Casing | Cassion (Material Removal) Comments Production Drilling/Coring Rate (Min./ft) Material Removed (conc./soll) Production Rate (blows/ft), (min./ft) Placement Method (Driven/others) Penetration (ft) Elev. (ft) Equip. Used Note: equipment breakdown, changes in productivity rates, changes in methods or equipment, reasons for changes, equipment mob/demob, when groundwater is encountered, whether temporary casings or slurries were used, whether soils samples were taken or saved, equip. start/stop times, or any other relevant info. 39 -30 40 -31 41 -32 42 43 -33 -34 44 45 -35 46 -36 47 -37 48 -38 49 -39 50 -40 51 -41 -42 -43 54 -44 55 **-45** 56 -46 -47 57 58 -48 59 -49 60 -50 61 -51 62 -52 63 -53 64 -54 65 -55 66 -56 67 -57 68 -58 69 -59 70 -60 71 -61 72 -62 73 -63 74 -64 -65 -66 Auditional Remarks:

'LOG PILE SHEET(CAISSONS)

Form BM 79 IN LIEU OF DH-OS-C79

Job Stamp:

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6 04-0440U4 SEISMIC RETROFIT BENICIA BRIDGE STRUCTURE

Benicia-Marinez Toll Bridge Bridge No.: 28-0153 Abut/Pier No.: 4 Sheet No.: 4/12 idge Name: Description 72" Perm. Steel Casing Item #: Description 66" Drilled Shaft # 31 Drill Equipment(s): Model(s): Caisson / Shaft No.: Reference Point Description: Date: Top of Footing Elevation: + 10.0 ft Insp. By: Comments Penetration (ft) € Note: equipment breakdown, changes in productivity rates, changes in methods or equipment, reasons for changes, equipment mob/demob, when Elev. groundwater is encountered, whether temporary casings or slurries were used, whether soils samples were taken or saved, equip. start/stop times, or any other relevant info. -29 39 -30 40 41 -31 -32 42 43 -33 44 -34 45 -35 -36 47 -37 -38 48 -39 49 50 -40 51 -41 -42 -43 -44 55 -45 56 -46 57 **-47** 58 -48 59 -49 60 -50 61 -51 -52 62 63 -53 64 -54 65 -55 66 -56 67 -57 68 -58 69 -59 70 -60 71 -61 72 -62 73 -63 74 -64 75 -65 -66 -67 Auditional Remarks:

LOG PILE SHEET(CAISSONS)

Form BM 79 IN LIEU OF DH-OS-C79

Job Stamp:

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6

04-0440U4 SEISMIC RETROFIT BENICIA BRIDGE STRUCTURE

Abut/Pier No.: 4 Bridge No.: 28-0153 Sheet No.: ne Name: Benicia-Marinez Toll Bridge 5/17 # 31 Description 72" Perm. Steel Casing Item #: 30 Description 66" Drilled Shaft Model(s): Caisson / Shaft No.: Drill Equipment(s): Elevation: + 10.0 ft Date: Reference Point Description: Top of Footing Insp. By: 72" Perm. Steel Casing Cassion (Material Removal) Comments Production Drilling/Coring Rate (Min./ft) Material Removed (conc./soil) Production Rate (blows/ft), (mln./ft) Placement Method (Driven/others) Penetration (ft) Note: equipment breakdown, changes in productivity rates, changes in methods or equipment, reasons for changes, equipment mob/demob, when groundwater is encountered, whether temporary casings or slurries were used, whether soils samples were taken or saved, equip. start/stop times, or any other relevant info. 3/15/5 Dr.11 Mud With 4/21/5 Stabbel 78 -68 79 -69 -70 80 81 -71 -72 82 83 -73 84 -74 85 -75 -76 87 -77 88 -78 89 -79 90 -80 -81 -82 93 -83 94 -84 95 -85 -86 96 97 -87 98 -88 99 -89 100 -90 101 -91 102 | -92 103 -93 104 -94 105 -95 3/18/8 Driven 3 106 -96 107 Pile sinking under hammers weight. -97 Sta bled 108 | -98 109 | -99 110 |-100 111 |-101 112 | -102 113 | -103 114 -104 -105 -106 Additional Remarks: model 2055, Rutch En W.H. Energy 170,000 ft-16

LOG PILE SHEET(CAISSONS)

Form BM 79 IN LIEU OF DH-OS-C79

Job Stamp:

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6 04-0440U4 SEISMIC RETROFIT BENICIA BRIDGE STRUCTURE

n∵hel	Name	Benicia-Marinez Toll Bridge Bridge No.: 28-0153 Abut/Pier No.: 4 Sheet No.: 6/12								
#	31	Description 72" Perm. Steel Casing Item #: 30 Description 66" Drilled Shaft								
Dru Eq	uipme	ent(s): Caisson / Shaft No.:								
Insp. B		Date: Reference Point Description: Top of Footing Elevation: + 10.0 ft								
		Comments								
Penetration (ft)	€	Note: equipment breakdown, changes in productivity rates, changes in methods or equipment, reasons for changes, equipment mob/demob, when								
flo	Elev. (ft)	groundwater is encountered, whether temporary casings or slumes were used, whether soils samples were taken or saved, equip. start/stop times, or								
etra	<u> </u>	any other relevant info.								
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LOG PILE SHEET(CAISSONS)

Form BM 79 IN LIEU OF DH-OS-C79

Job Stamp:

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6

04-0440U4 SEISMIC RETROFIT BENICIA BRIDGE STRUCTURE

Abut/Pier No.: 4 Bridge No.: 28-0153 Sheet No .: 7/12 Benicia-Marinez Toll Bridge nd lae Name: Description 66" Drilled Shaft Description 72" Perm. Steel Casing Item #: # 31 Model(s): Caisson / Shaft No.: Drill Equipment(s): Reference Point Description: Date: Top of Footing Elevation: + 10.0 ft Insp. By: Cassion (Material Removal) Comments 72" Perm. Steel Casing Material Removed (conc./soil) Placement Method (Driven/others) Drilling/Coring Rate (Min./ft) Production Rate (blows/ft), (min./ft) Penetration (ft) Note: equipment breakdown, changes in productivity rates, changes in methods or Elev. equipment, reasons for changes, equipment mob/demob, when groundwater is encountered, whether temporary casings or slurries were used, whether soils samples were taken or saved, equip. start/stop times, or any other relevant info. Stabbell 3/8/9/11/11 117 | -107 118 -108 -109 119 -110 120 121 |-111 122 -112 Driven 9 MOX-123 | -113 5 124 -114 125 | -115 126 -116 127 -117 128 -118 129 | -119 -120 -121 132 -122 Ty. elevation at - 123 on 3/18/59 133 | -123 avilling at 6:00 An 134 -124135 | -125 136 | -126 137 | -127 138 | -128 139 | -129 140 | -130 141 |-131 142 -132 143 | -133 144 | -134 145 -135 146 | -136 147 | -137 148 | -138 149 | -139 150 | -140 151 -141 152 -142 153 -143 -144 -145Additional Remarks:

LOG PILE SHEET (CAISSONS)

Form BM 79 IN LIEU OF DH-OS-C79

Job Stamp:

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6

'ge	Name		28-0153		Abut/Pier No.:		
.#_	31	Description 72" Perm. Steel Casing	Item #:	30 [Description 66		
		ent(s):	Model(s):			sson / Shaft N	
nsp. B	y:	Date: Reference Point D			Top of Footi	ng Elevatio	n: + 10.0 ft
			Comme	nts			
Penetration (ft)	€	Note: equipment breakdown, changes in productivity rates, o	hanges in meth	ods or equ	inment researche for	changes equipm	ent mob/domehto-
ation	Elev. (ft)	groundwater is encountered, whether temporary casings or sli	urries were used	d, whether	soils samples were	taken or saved, ed	uip. start/stop times. or
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LOG PILE SHEET (CAISSONS)

Form BM 79 IN LIEU OF DH-OS-C79

Job Stamp:

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6

04-0440U4 SEISMIC RETROFIT BENICIA BRIDGE STRUCTURE

Abut/Pier No.: 4 Sheet No.: Benicia-Marinez Toll Bridge Bridge No.: 28-0153 Pridge Name: # 31 Description 72" Perm. Steel Casing Item #: 30 Description 66" Drilled Shaft Model(s): Caisson / Shaft No.: ביוו Equipment(s): Top of Footing Elevation: + 10.0 ft Date: Reference Point Description: Insp. By: 72" Perm. Steel Casing | Cassion (Material Removal) Comments Material Removed (conc./soil) Production Rate (blows/ft), (min./ft) Drilling/Coring Rate (Min./ft) Placement Method (Driven/others) Penetration (ft) Note: equipment breakdown, changes in productivity rates, changes in methods or equipment, reasons for changes, equipment mob/demob, when groundwater is encountered, whether temporary casings or slurries were used, whether soils samples were taken or saved, equip. start/stop times, or any other relevant info. 156 -146 157 | -147 158 | -148 159 | -149 160 | -150 161 |-151 162 -152 163 | -153 164 | -154 165 | -155 166 | -156 167 | -157 168 | -158 19 -159 Contractor is at a depth of +10 at 2:00pm drill rate is approx 35/hour -160 7/1 |-161 172 | -162 173 | -163 174 | -164 175 | -165 176 | -166 177 -167 178 | -168 179 | -169 180 | -170 181 | -171 182 -172 183 -173 184 | -174 185 -175 186 -176 187 | -177 188 -178 189 | -179 190 |-180 191 |-181 192 | -182 193 -183 -184 Additional Remarks:

LOG PILE SHEET(CAISSONS)

Form BM 79 IN LIEU OF DH-OS-C79

Job Stamp:

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6 04-0440U4 SEISMIC RETROFIT

04-0440U4 SEISMIC RETROFIT

¹ ₁qe	Name		-0153	Abut/Pier No.: 4 Sheet No.: 10/12
. #	31_	Description 72" Perm. Steel Casing Item		Description 66" Drilled Shaft
Drill E	quipme		iel(s):	Caisson / Shaft No.:
Insp. B	y:	Date: Reference Point Descr		Top of Footing Elevation: + 10.0 ft
			Comments	
Penetration (ft)	Elev. (ft)		s in methods or were used, whetl other relevant info	her soils samples were taken or saved, equip. start/stop times, or
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LOG PILE SHEET(CAISSONS)

Form BM 79 IN LIEU OF DH-OS-C79

Job Stamp:

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6

	Name				z Toll Bri		Bridge	No.:	28-0153 Abut/Pier No.: 4 Sheet No.: 11/12
	31_			72" Pe	rm. Stee	el Casir	ng		Item #: 30 Description 66" Drilled Shaft
5 1 · · /									Model(s): Caisson / Shaft No.:
nsp. B	y:			Date:	,				escription: Top of Footing Elevation: + 10.0 ft
		72" Per	m. Steel	Casing	Cassion	ı (Mate	rial Rei	moval)	Comments
Penetration (ft)	Tip Elev. (ft)	Placement Method (Driven/others)	Production Rate (blows/ft), (min./ft)	Date	Production Drilling/Coring Rate (Min./ft)	Material Removed (conc./soil)	Equip. Used	Date	Note: equipment breakdown, changes in productivity rates, changes in methods or equipment, reasons for changes, equipment mob/demob, when groundwater is encountered, whether temporary casings or slurries were used, whether soils samples were taken or saved, equip. start/stop times, or any other relevant info.
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LOG PILE SHEET(CAISSONS)

Form BM 79 IN LIEU OF DH-OS-C79

Additional Remarks:

Job Stamp:

04-CC, SOL-680, 780-25 0/25-5, 0.0/0.6

04-0440U4 SEISMIC RETROFIT BENICIA BRIDGE STRUCTURE

Benicia-Marinez Toll Bridge Bridge No.: 28-0153 Abut/Pier No.: 4 Sheet No.: ae Name: Description 72" Perm. Steel Casing Item #: Description 66" Drilled Shaft # 31 Model(s): Drill Equipment(s): Caisson / Shaft No.: Reference Point Description: Top of Footing Elevation: + 10.0 ft Date: insp. By: Comments Penetration (ft) Note: equipment breakdown, changes in productivity rates, changes in methods or equipment, reasons for changes, equipment mob/demob, when Elev. groundwater is encountered, whether temporary casings or slurries were used, whether soils samples were taken or saved, 'equip. start/stop times, or any other relevant info. 라 |-185 195 196 | -186 197 | -187 198 | -188 199 | -189 200 -190 201 |-191 202 | -192 203 | -193 204 | -194 205 | -195 206 | -196 207 | -197 3 | -198 , -199 210 | -200 211 | -201 212 | -202 213 | -203 214 | -204 215 | -205 216 | -206 217 | -207 218 | -208 219 -209 220 | -210 221 |-211 222 | -212 223 | -213 224 | -214 225 | -215 226 | -216 227 | -217 228 | -218 229 | -219 230 | -220 231 | -221 -222 -223